IndexNow Protocol Implementation Guide: Submitting URLs to Bing and Yandex

The IndexNow Protocol Implementation Guide: Submitting URLs to Bing and Yandex is not a theoretical overview. It's a survival manual for search teams tired of watching sitemaps rot in a crawl queue. You publish a page — critical news, a legal update, an ecommerce landing page — and it sits undiscovered for days. Meanwhile, the traffic window closes. The push-based model changes the power dynamic: you don't wait for the crawler. You tell the engine, “It's here, right now.”

Bing and Yandex adopted IndexNow aggressively because it solves their own cost problem. Crawling the entire web is obscenely expensive. When you push a URL through this protocol, you eliminate the need for the bot to guess or poll. Internal testing by Bing suggests that IndexNow-submitted URLs are indexed an order of magnitude faster than those discovered via sitemap alone — often appearing in search results within minutes to a couple of hours, not days. That's not marketing fluff; it's a direct consequence of cutting the discovery lag out of the pipeline.

But here's the part nobody mentions: most implementations are wrong. People copy-paste a curl command from a blog, get a 200 OK, and assume they're done. They aren't. They didn't handle the soft failure modes where the API accepts the URL but the engine drops it because of a rogue canonical, a noindex sneaking through, or a server redirect chain that bleeds crawl signals. This guide will walk you through the real mechanics — the exact endpoints, the error states, the rate limit dance, and the production-hardened code you can actually deploy.

Why the Old Crawl-and-Hope Model Is Failing

Think of a traditional sitemap submission like pinning a flyer to a corkboard in a stadium and hoping someone reads it. The crawler visits your sitemap.xml at its own pace — sometimes daily, sometimes weekly, sometimes never if you blew your crawl budget serving soft 404s and faceted navigation garbage. For a site with 50,000 URLs, you might see only 500 discoverable per day. The rest sit in limbo. This isn't a hypothetical; it's the standard behavior for moderate authority domains on Bing and Yandex, whose crawl resources are a fraction of Google's.

IndexNow flips the corkboard into a direct hotline. You POST a set of URLs to a single endpoint. Bing, Yandex, and other participating engines (through the shared protocol) receive the notification instantly. The engine's internal scheduler flags those URLs for immediate processing. But — and this is the bottleneck — immediate notification does not equal immediate indexing. The engine still runs its quality and duplicate-content

check. If your page sends a 302 redirect to a canonical that doesn't match, or the robots meta says noindex, the push fails silently. The protocol's weak spot is that the 200 OK response from the API only confirms receipt, not indexation.

> Rule of thumb: If you're waiting more than 24 hours for a page to appear in Bing after publishing, your IndexNow setup is broken or never existed.

Securing Your API Keys: Bing and Yandex Webmaster Setup

The IndexNow protocol itself is keyless — anyone can submit any URL they own by proving ownership through a simple key file. But in practice, to integrate smoothly with Bing and Yandex Webmaster Tools you'll generate an API key from each console. Two separate keys. The key file method (dropping an api_key.txt at the root) is the fallback for anonymous submissions; Webmaster-generated keys give you better monitoring and quota insights.

For Bing, navigate to IndexNow API documentation in Webmaster Tools, verify your site, and generate a key. For Yandex, the process is nearly identical inside Yandex.Webmaster. Both allow you to view a submission log: URLs pushed, timestamp, and whether the engine attempted to crawl them. That log is your first stop when troubleshooting — not staring at the search result page manually.

One sharp edge: if you use a CDN that caches everything, including api_key.txt, the engine's verification request for anonymous submission might hit a stale cache. So you set a rule to bypass caching for that exact file.

Constructing the Payload: The Only Two Endpoints You Need

The IndexNow API exposes two operations: single URL submission and bulk URL submission. The bulk endpoint accepts an array of URLs and submits them to all participating engines in one call. The logic is simple: POST a JSON body with host, key, keyLocation, and urlList. But burying the subtleties: the host must match the exact verified domain and scheme (https://) as it appears in Webmaster Tools. If your site uses www and you submit without it, the push silently matches nothing. Lost.

Here's the minimal JSON payload for a bulk submission. Notice the keyLocation is optional if your key file sits at the root, but I always include it to eliminate ambiguity.

```
{
  "host": "www.example.com",
  "key": "c1a2345b6789c012d345e67890fa2345",
```

```
  "keyLocation": "https://www.example.com/api_key.txt",
  "urlList": [
    "https://www.example.com/new-page",
    "https://www.example.com/updated-article"
  ]
}
```

This block is straightforward. The disaster comes when someone uses a trailing slash inconsistency — URL in the list has a trailing slash but the canonical doesn't, causing the engine to treat it as duplicate and drop the push. Verify URL-case and trailing-slash policy across your entire site before you send one byte.

Where Production Deployments Actually Break

A common situation we see: a site migrates from HTTP to HTTPS. Ownership verification in Bing Webmaster Tools is tied to the old property. The new HTTPS property has no key, so every submission bounces with a “403 Unauthorized” even though the URL format is correct. The fix is not obvious because the error message from the IndexNow endpoint is a generic 403 without a detailed error body. You must cross-check the key's associated host in Bing Webmaster Tools.

Another silent killer: CDN edge functions that inject X-Robots-Tag: noindex on certain URL patterns. You push a product page, Bing gets the push, visits the URL, sees the noindex header, drops it. Your API call succeeded. Your page was never indexed. The gap between submission success and indexation success is where most teams lose the thread.

Rate limits are forgiving — 10,000 URLs per day per verified host — but I've seen companies hit that limit with auto-submit plugins that push every URL on every WordPress cron tick, including admin login pages. Use a bloom filter or a simple database table to track already-submitted URLs and avoid resubmitting unchanged content. Wasted quota is a real budget.

A 5-step sanity checklist before you go live:

- Verify the key works with a single URL using curl, then check the Webmaster “IndexNow submissions” panel for that URL.
- Ensure all submitted URLs return a 200 status and are not blocked by robots.txt (the engine will still fetch but won't index).
- Strip UTM parameters and other tracking junk; submit the canonical URL only.
- Set a Cache-Control: no-store header on your key file to avoid CDN caching hiding it.
- Log every API call locally — timestamp, URL list, HTTP response code, and any

error body. This becomes your audit trail.

A Real Worked Example: Submitting 2,000 URLs After a Migration

Last year I handled a site migration for a regional news publisher. They moved 2,000 stories from a subdomain (news.example.com) to a subdirectory (example.com/news). The old URLs were 301-redirected to new ones. We needed to notify Bing and Yandex about the new destination URLs immediately because the crawler was still chasing the old subdomain and wasting budget.

I wrote a small Python script that parsed the new sitemap, extracted all values, filtered out anything that returned a non-200, and submitted batches of 50 URLs per request to the IndexNow bulk endpoint with a 1-second delay between batches. Within 2 hours, Bing Webmaster Tools reported 1,870 of the 2,000 URLs as “processed”. Of those, 1,640 were indexed; the rest were dropped due to duplicate content (the old subdomain still existed with permanent redirects — a subtle configuration issue that we fixed later). The point: the push gave us nearly instant visibility into which URLs actually get past the engine's filter, something no sitemap submission could do.

Below is the Python snippet that does the heavy lifting. It respects 429 Too Many Requests with exponential backoff — a real edge case that most toy examples ignore.

```
import requests, time
from xml.etree import ElementTree as ET

def submit_urls(sitemap_url, key, host):
    resp = requests.get(sitemap_url)
    root = ET.fromstring(resp.content)
    urls = [el.text for el in root.iter('{http://www.sitemaps.org/schemas/sitemap/0.9}loc')]
    # Filter out non-200 URLs here for brevity
    batch_size = 50
    for i in range(0, len(urls), batch_size):
        batch = urls[i:i+batch_size]
        payload = {
            "host": host,
            "key": key,
            "keyLocation": f"https://{host}/api_key.txt",
            "urlList": batch
        }
        r = requests.post("https://api.indexnow.org/indexnow", json=payload)
        if r.status_code == 429:
            retry_after = int(r.headers.get("Retry-After", 60))
            print("Rate limited, sleeping for", retry_after)
            time.sleep(retry_after)
            # resend same batch after backoff
            r = requests.post("https://api.indexnow.org/indexnow", json=payload)
        if r.status_code == 200:
            print(f"Batch {i//batch_size+1} submitted OK")
```

```
        else:
            print(f"Batch failed: {r.status_code} {r.text}")
```

The real failure mode here is that some sitemap URLs might contain line breaks or percent-encoding that makes the JSON invalid. So in production you must also URL-encode or validate each entry.

Frequently Asked Questions (for the Engineer, Not the Manager)

Does IndexNow work for Yandex if my site is not verified in Yandex Webmaster?
Yes, if you use the anonymous key file method. Place a file named api_key.txt at the root of your site containing your key. But without Webmaster verification, you lose the submission log and may not see if the push was actually processed. Verification is the safer path.

What happens if I submit the same URL twice in one day?
The engine will process the URL again but will not reindex it if content hasn't changed. The second push does no harm but consumes quota. Bing's limit is 10k URLs per day per host, and duplicate submissions count against it. Use a deduplication layer.

Can I use IndexNow via a serverless function instead of a cron job?
Absolutely. A Cloudflare Worker or AWS Lambda can trigger on a new post published (e.g., via webhook) and POST to the IndexNow endpoint. That's the cleanest pattern. Just ensure the worker's outbound request IP isn't throttled by your own server's WAF.

How do I confirm my URL was actually indexed after pushing?
Don't trust the API response. Use the Bing Webmaster Tools submission log or run a site:example.com/specific-url search with a fresh user-agent after waiting an hour. For bulk monitoring, tools like this index checker can verify across thousands of URLs, but remember IndexNow is engine-agnostic.

What's the worst mistake people make with the PHP auto-submit plugin?
They wire it to the WordPress save_post hook without checking if the post status is publish and not a revision. That triggers a submission on every autosave, flooding the endpoint and blowing the daily quota in 20 minutes. Always guard with get_post_status() === 'publish'.

Stop Waiting and Start Pushing

You don't need a complex infrastructure to make IndexNow work. You need a key, a verified host, and a small script that fires when a URL changes. That's the 80/20. The remaining 20% — error handling, quota management, logging — prevents you from coming undone when the edge cases hit. Most teams overthink the config and underthink the monitoring.

The single most effective thing you can do today: pick one content type — news articles, job listings, product pages — and implement push submission for that alone. Watch the Bing and Yandex indexing rate over 48 hours. You'll see the curve flatten into almost instantaneous discovery, at which point the question isn't “does IndexNow work?” but “why didn't I do this 6 months ago?”.

Get your IndexNow key, verify your domain in Bing Webmaster Tools, and run that first curl command. The protocol is dead simple. Your sitemap can finally collect dust.

For verifying indexation status at scale, a SpeedyIndex indexing service confirms coverage without manual Search Console lookups.

Sources

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About

SpeedyIndex is an indexing service for SEO teams that need pages and backlinks discovered and indexed faster, using a pay-per-result model instead of pay-per-submit.

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